XM777 Joint Lightweight 155mm Howitzer (LW155)

MISSION
Provide close and deep fire support to Army light and Marine Corps maneuver forces.

DESCRIPTION AND SPECIFICATIONS
The XM777 Joint Lightweight 155mm Howitzer (LW155) is a joint Marine Corps/Army program, in which the Marine Corps funds the howitzer research, development, test, and evaluation (RDT&E) and the Army funds the RDT&E for Towed Artillery Digitization (TAD) and other automation enhancements. It will replace the M198 howitzer as a general support system for Army light forces. The Marine Corps will use the weapon in direct support, replacing all existing cannon systems. The XM777 incorporates innovative designs to achieve lighter weight, without sacrificing the range, stability, accuracy, or durability of the current system. The lighter weight is achieved through lower trunnion height and the use of high-strength titanium, a primary component of the lower carriage and cradle assembly. The XM776 cannon tube is a derivative of the U.S. M284 and M199 cannon tubes, ballistically similar to the M199 cannon tube to provide the range of the M198 howitzer. The XM777's lighter weight, smaller footprint, and lower profile provide improved strategic deployment, tactical mobility, and survivability. The automatic primer feeding mechanism, loader-assist, digital fire control, and other automation enhancements provide improved survivability, lethality, and combat reliability, and will provide light artillery with a semi-autonomous capability that is currently found only in self-propelled howitzers.

Weight: 9000 lb or less
Emplace: 3 min or less
Displace: 2 min or less
Maximum range: 30 km (assisted)
Rate-of-fire: 5 rnds/min max, 2 rnds/min sustained
Ground mobility: FMTV, MTVR, current 5-ton trucks
Air mobility: C-5, C-17, C-130, C141, MV-22, CH53D/E, CH47D
155mm compatibility: All fielded and developing NATO munitions
Digital fire control: Self-locating and pointing; on-board firing data computation; digital and voice communications; self-contained power supply. These capabilities are being developed under the TAD Program

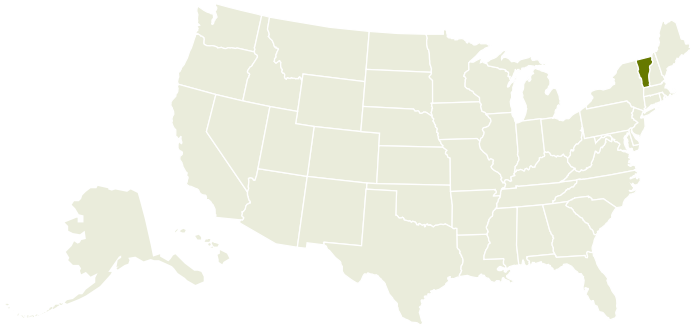
FOREIGN COUNTERPART
No known foreign counterpart

FOREIGN MILITARY SALES
The current LW155 engineering and manufacturing development (EMD) phase is a cooperative effort with the United Kingdom and Italy. Future cooperative production agreements with both allies are currently being negotiated.

PROGRAM STATUS
- BAE Systems of the United Kingdom has delivered the first of eight EMD prototype howitzers. The contract with BAE Systems includes options for the first two years of production, starting in FY03. BAE Systems has selected U.S. partners to produce approximately 70 percent of the howitzer.
- The TAD program has completed its Milestone I/II review and General Dynamics Armament Systems (GDAS) has been selected as the prime contractor for the EMD phase of the digital fire control system.

PROJECTED ACTIVITIES
- **1QFY01** Begin Howitzer development testing (DT).
- **1QFY02** Delivery of 8 EMD XM777 completed.
- **3QFY02** Complete Howitzer DT and multi-service operational test and evaluation.
- **4QFY02** Howitzer Milestone III; Conclude Howitzer EMD phase.
- **3QFY04** USMC initial operational capability (IOC).
- **1QFY05** Army IOC.

PRIME CONTRACTORS
Howitzer: BAE Systems (United Kingdom)
TAD: General Dynamics (Burlington, VT)



* See appendix for list of subcontractors